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**REMARKS**

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are unpatentable or anticipated under the provisions of 35 U.S.C. §§112 or 102, respectively. Thus, the Applicants believe that all of these claims are now in allowable form.

**I. IN THE CLAIMS**

Dependent claim 6 is herein amended for grammatical reasons unrelated to patentability. Specifically, the spelling of the term "establisging" was corrected to now recite "establishing". The Applicants respectfully submit that no new matter was added.

**II. REJECTION OF CLAIMS 5, 9 AND 10 UNDER 35 U.S.C. § 112**

The Examiner has rejected claims 5, 9 and 10 in the Office Action under 35 U.S.C. § 112 as being unpatentable for being indefinite. Specifically, with regard to claim 5, the Examiner asserts that it is not clear what an "intermediate loading state" is and that "adjacency is established" and "placing the routers in an intermediate loading state" sound like contradictory statements. The Applicants herein amend dependent claim 5 to clarify a limitation that is already inherently present in dependent claim 5. As supported by the Applicants' specification in paragraph [0023], an "intermediate loading state" comprises "a hanging state". Namely, an intermediate loading state is a state where a router is still waiting to receive further information, e.g., a link state advertisement (LSA) from a reflector, so that the router can load the information contained in the LSA to a link state database so that its link state database can be updated or synchronized with another router. One aspect of the present invention is that this intermediate loading state is intentionally induced so that the router is not able to synchronize with the reflector because although the reflector advertises its existence and its intention to send a LSA, the reflector does not actually send the LSA.

Moreover, "adjacency is established" and "placing the routers in an intermediate loading state" are clearly not contradictory, as supported by the Applicants' specification in paragraphs [0021] – [0023]. Again, "adjacency is established" because the reflector advertises its existence to an adjacent router and its intention to send a LSA to the

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adjacent router. However, the reflector does not complete the synchronization because no LSA is sent to the notified router. Thus, adjacency is established between the router and the reflector, i.e., the router knows that the reflector is adjacent from the directly received message.

With regard to claims 9 and 10, the Examiner asserts that it is not clear what "completing the synchronization" and "creating an intermediate loading state" means and that "completing the synchronization" and "creating an intermediate loading state" sound like contradictory statements. First, the Examiner seems to have mis-read independent claim 9. Independent claim 9 recites "without completing the synchronization". (Emphasis added.) As stated in the Applicants' specification, the two ends (e.g., a reflector and an adjacent router) start the database synchronization but never finish it. (See Applicants' specification, para. [0023]). Again, the failure to complete the synchronization is intentional. Furthermore, the Applicants herein amend independent claim 9 to clarify a limitation that is already inherently present in independent claim 9. As supported by the Applicants' specification in paragraph [0023], an "intermediate loading state" comprises "a hanging state". Consequently, the limitations of independent claim 9 are clearly not contradictory as they are consistent with the Applicants' specification in paragraph [0023]. As such, the Applicants respectfully request the rejection be withdrawn.

### **III. REJECTION OF CLAIMS 1-8 UNDER 35 U.S.C. §102**

The Examiner has rejected claims 1-8 in the Office Action under 35 U.S.C. § 102 as being anticipated by Martin (US Patent 6,744,739, issued June 1, 2004, hereinafter referred to as "Martin"). The Applicants respectfully traverse the rejection.

Martin teaches a method and system for determining network characteristics using routing protocols. The method uses autonomous system boundary routers (ASBR), internal area routers and area border routers (ABR) that communicate with each other using Open Shortest Path First (OSPF) protocol. (See Martin, col. 5, ll. 18-31.) By querying a router to determine its router type, Martin teaches a method that obtains IGP network information that is useful in determining network routing topologies.

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(See Abstract.)

The Examiner's attention is directed to the fact that Martin fails to teach or suggest the novel concept of a method of tracking the topology of a packet-switched network comprising passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol or a system for tracking the topology of a packet-switched network comprising one or more reflectors which are capable of passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol, as positively claimed by Applicants' independent claims 1 and 6. Specifically, Applicants' independent claims 1 and 6 positively recite:

1. A method of tracking the topology of a packet-switched network comprising:
  - (a) passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol; and
  - (b) using information in the link state advertisements to construct a topology view of the network. (Emphasis added.)
6. A system for tracking the topology of a packet-switched network comprising:
  - one or more reflectors which are capable of passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol; and
  - an aggregator which is capable of receiving topology information from each of the reflectors and constructing a topology view of the network. (Emphasis added.)

The Applicants' invention teaches a method of tracking the topology of a packet-switched network comprising passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol or a system for tracking the topology of a packet-switched network comprising one or more reflectors which are capable of passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol. Namely, the reflectors in Applicants' invention are capable of receiving LSAs, but the reflectors do not actively participate in the forwarding of the LSAs to other routers in the system. Thus, the reflectors are passively monitoring the

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link state advertisements. (See Applicants' specification, para. [0023]) Thus, one advantage of the present invention is that it imposes no penalties on packet routing, forwarding or network reliability. (See Applicants' specification, para. [0005].)

In contrast, Martin completely fails to anticipate Applicants' invention. First, Martin does not teach or suggest a method of tracking the topology of a packet-switched network comprising passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol. Martin teaches that all of the ASBRs, internal area routers and ABRs use OSPF protocol for communications, i.e., "uses flooding between routers to exchange link state advertisements (LSAs) ..." (See Martin, col. 5, ll. 18-25.) Consequently, the routers in Martin must actively engage in forwarding LSAs. Thus, Martin clearly teaches away from Applicants' invention.

In addition, Martin completely fails to teach or to suggest a system for tracking the topology of a packet-switched network comprising one or more reflectors which are capable of passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol. As described in the Applicants' specification, a reflector possesses many characteristics including, for example but not limited to not performing any OSPF computation or not taking part in flooding. (See Applicants' specification, para. [0022].) The routers taught by Martin are clearly not reflectors, as taught by the Applicants' invention. In contrast, Martin directly teaches away from the Applicants' invention because Martin teaches that all ASBRs, internal area routers and ABRs of the autonomous system communicate using the Open Shortest Path First (OSPF) protocol. (See Martin, col. 5, ll. 18-21, emphasis added.) Furthermore, Martin teaches that the routers participate in flooding, such as ASBR flooding type 5 LSAs. (See *Id.* at ll. 49-51.) Therefore, Martin does not teach or suggest a method of tracking the topology of a packet-switched network comprising passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol or a system for tracking the topology of a packet-switched network comprising one or more reflectors which are capable of passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol. As such, the

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Applicants respectfully submit that Martin clearly does not anticipate Applicants' independent claims 1 and 6.

Furthermore, dependent claims 2-5 and 7-8 depend, either directly or indirectly, from claims 1 and 6, respectively, and recite additional limitations. As such, and for the exact same reason set forth above, the Applicants submit that claims 2-5 and 7-8 are also patentable and are not anticipated by Martin. As such, the Applicants respectfully request the rejection be withdrawn.

### Conclusion

Thus, the Applicants submit that claims 1-10 now fully satisfy the requirements of 35 U.S.C. §§, 112 and 102. Consequently, the Applicants believe that these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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